DATA PROCESSING DIGEST

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General Information

WHAT MANAGEMENT DOESN'T KNOW CAN HURT

Perrin Stryker
FORTUNE, November 1957; pages 153-155, 284-289.

FORTUNE takes a long, keen-eyed look at office efficiency, and especially the claims made for EDP. First, most managements are unaware of the true cost of office operations because the costs are buried by traditional accounting practices. Moreover office costs are increasing with the increase in management's desire for more information, faster. The argument that EDP can save clerical cost is also suspect, because tests have shown that clerical workers rarely produce more than about 50% of capacity. Even if clerical help were 100% efficient, however, there is further waste in most business systems. Ben Graham of Standard Register Company has found that "30% of all company paper work is still wasted work because it does not serve the two main purposes of (1) meeting legal requirements and (2) helping people do a better job." He believes that "a 10 percent saving in simplifying an office procedure will often equal the total possible savings which could be achieved by the complete elimination of the forms and the final filing or storing."

How does this affect EDP, with the claims made for it of supplying management with more and better information, faster? There is "no factual basis for the assumption that all managers today need more information and need it faster." One consultant has said he knows of no case where getting information faster can be justified on the grounds of cost savings. His studies have "rarely shown a need for electronic equipment." Moreover, those companies which have taken the plunge have frequently found that their original calculations omitted or underestimated many large expenditures, such as programing, preparation of site, and recurring operation costs.

What is needed, of course, is honest appraisal of the entire office function, in order that the real costs be brought to light. "One place where questions might be most fruitful is in the account-

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"More" information is not "better" information

ing department, which often makes a fetish of elaborate and continual checks and controls." This is likely to disclose "that controllers themselves are responsible for a big slice of office costs."

However, "so long as management continues to ask for more and speedier information, the EDP-equipped controller will probably be considered indispensable....EDP may in the end so overwhelm executives with data that top management will realize that too much data can be as harmful as too little." Meanwhile, "systems and procedures men...have had to assume that such information was worth the costs. One way to measure the benefits of such demands would be to measure the office costs that they incur against the amount of increased business that would be necessary to justify such expense."

Top management's best course of action would be "to ask two basic questions: (1) What office work actually needs to be done to make a profit for the company? (2) How many people and machines are needed to do this work? Solid answers to these questions would not only slash office costs; they would mark the beginning of real office management; the management of management itself."

A MINICARD SYSTEM FOR DOCUMENTARY INFORMATION

J. W. Kuipers, A. W. Tyler, W. L. Myers; Eastman Kodak Co.
AMERICAN DOCUMENTATION, October 1957; pages 246-268.

New information on the prototype Minicard system is contained in this article. ((See: DPD February 1956, page 7, for review of the paper presented before the American Documentation Institute, November 1954.))

Documents on microfilm, coded for electronic searching

The Minicard System is a general-purpose system for the storage and retrieval of large volumes of information. It provides for entering increasing volumes of a wide variety of information into the system. It also has the advantage of retaining "unprocessed" information, rather than information contained in handbooks or compendia. The advantage implied here is the ease of searching through single information units rather than through volumes which contain their own indexes.

The Minicard system consists of microfilms of documents which contain an area of coded information which indentifies the document and provides for a number of subject codes. The Minicards are filed in racks on "sticks" and are searched photoelectrically by an electronic searching device activated either by a punched paper tape or by a plugboard system. The interrogation tape or plugboard is prepared by an operator who codes the information requested by the person or service using the document service.

A detailed description of the coding techniques and the Minicard file equipment is given in this article. The text is well illustrated with charts and diagrams; and pictures of the actual equipment are included. The equipment is still in its research phase, and all facilities are, at present, committed to the needs of the government.

ARE AUTOMATIC COMPUTER SPEEDS FASTER THAN BUSINESS NEEDS?

Ned Chapin, Stanford Research Institute, Menlo Park, California
COMPUTERS AND AUTOMATION, October 1957; pages 12-17.

In general, the higher the speed, the lower is the per unit cost of data processing accomplished. Therefore, computer speeds are not faster than business needs, but are, in fact, one of the most fundamental characteristics to be considered. The author supports these conclusions by probing the causes of input-, output-, and processing-limited speeds. He believes these limitations are "largely a function of the specifications of the particular applications for which an automatic computers [is] used."

Speed is criterion for selection of computer

Moreover, "where the input-output speeds are limited, generally action can be taken to reduce the volume of input and output by the better design of the business systems...utilizing the computer." Input limitations are imposed by too much information being entered for the amount being processed. In some cases, input information is a result of information handling done outside the electronic system which would be better handled within the system.

Output limitations are usually the result of producing voluminous reports for human judgment, much of which could be better and faster done by the electronic system using the principle of management by exception.

Since "all applications of an automatic computer in business must be limited by either the input, output, or processing speed of the automatic computer..." and since both input and output limitations can be alleviated through improved systems design, "the processing speed can be shown to be the basic determinant of the per unit cost of processing directly done by the automatic computer." This conclusion is reached because of the fact, shown in the article, that all costs of a computer system are fixed with the exception of consumed materials, such as business forms. "Without speed, the use of an automatic computer can rarely be justified in business on a cost basis."

CUSTOMER INFORMATION SERVICE AND ELECTRONIC ACCOUNTING

J. H. Purdy, Baltimore Gas and Electric Company
Paper presented at American Gas Association Convention, October 1957.

An important part of planning for electronics, is the consideration of public relations aspects of the applications. A customer relations representative should be participating in the feasibility studies in order "to foresee the impact of an electronic data processing system upon customer relations."

Will the EDP system insure good customer relations?

Although two of the reasons for installing EDP equipment have been the ability to obtain faster answers to customer inquiries and reduction of errors in customer accounts, the author states that consolidation of records as in an EDP system does not necessarily mean faster access, and in his own company, error occurence under the old system was about 26/100 of one per cent, hardly a rate which is a big factor in customer relations.

Moreover, the EDP system must have a high degree of accuracy in its input data. While, under a manual system, errors may be caught at any point within the system, errors are much more difficult to detect and correct in the electronic system.

Allowances must be made, also, for handling of exceptions, such as delinquent accounts, which deserve individual attention. On the other hand, "the price to be paid for this exceptional treatment is proportionately expensive and must be carefully weighed by management prior to making provision in the new system."

EDP can, however, assist in improving customer relations in such instances as: (1) Providing current financial information, (2) printing out of arrears charges and payments, (3) daily posting of payments for answering customer inquiries, (4) faster final billing.

Because of the volumes of information which are available more readily in an electronic system, good judgment must be used in deciding what information is important, and an evaluation has to be made in each instance in terms of cost. In addition, inexperience in using the electronic system can affect customer relations adversely. In the final analysis, however, a thorough study of the business prior to installing the system will be of benefit in understanding the entire business operation.

SPAN HAS BEGUN OPERATION

SPAN ((see DPD: July 1957, page 5)) now has a building, and is ready to begin EDP service for its four member insurance companies in Hartford, Connecticut. The four (Springfield, Phoenix,

Aetna, and National) have formed an independent organization to use an IBM 705 Data Processing System. It is the first cooperative organization created by independent, competing companies to use electronic computing equipment for data processing and accounting. The new building houses the administrative, planning and operating personnel, along with the computing equipment. The SPAN staff consists of 24 persons selected from the member companies, seven liaison persons from the companies, and four full-time engineers from IBM. An executive officer of each member company constitutes the SPAN administrative committee. The computing system is leased from IBM. Each member's share is determined by the number of hours of machine time used. Premiums and losses are converted to punched cards in the member company offices and sent to SPAN in ten-day cycles. There they are converted to magnetic tape and processed. The resulting reports are then sent back to the originating company. By pooling resources and talent all members of the SPAN organization have the benefit of large scale equipment which none of them individually could have afforded.

HOW TO EVALUATE A DATA PROCESSING SYSTEM FOR THE OFFICE

Ned Chapin, Stanford Research Institute, Menlo Park, California
AUTOMATION PROGRESS, October 1957; pages 460-463, 467.

The author presents a plan for guiding a company in the financial considerations of acquiring an electronic data processing system.

Determine costs of present and proposed systems

Step 1. Determine the variable costs of doing the present data processing in the company that could be done by a computer. This includes listing all costs in the flow of information from the original source to its final use, noting each time information is handled by humans, processed by machine, affecting the operation of office equipment, and processed or written on paper.

Step 2. Estimate the variable costs of doing the planned data processing with a computer. Do not consider the first costs and operating costs of the computer in this step. (Most of the computer system costs result from input and output, as shown in doing this step.)

Step 3. Consider the variable benefits associated with the alternative systems, and assign monetary values. These will become negative costs for the respective systems.

Step 4. Subtract the total of the proposed computer system's variable cost from that of the present system. The difference is a variable saving, generally representing an inflow of funds. This should be re-estimated for each month into the foreseeable future. This net inflow of funds must finance the computer system. No amortization items may be included in either total.

Step 5. Estimate the operating expenditures for the computer, for each month into the foreseeable future. These will include rental, operating and programing personnel, maintenance, and cost of materials and power.

Step 6. Deduct the computer operating costs from the variable savings to obtain the net variable expenditure savings, for each month into the future. This separates the operating cost as a separate item from the predominately input, output expenditures figured in step 2. This net variable saving amounts to an inflow of funds over the course of time. Any tax factors that may be included should properly reflect the consequences of this savings, and not necessarily the nominal amount of the tax.

Step 7. Estimate the acquisition expenditure for the computer, in the month-to-month fashion. Include in this expenditure, costs for air conditioning, preparation of site, personnel.

Analyze "inflow" and "outflow"

The final step is analysis. Two flows of funds must be compared: a net inflow due to the use of the computer, and an outflow of funds representing the cost of preparing for, and acquiring, an automatic computer. An analysis method known as "present worth method" is suggested. In this method, each expenditure of funds is transformed, by means of the compound interest formula, to its equivalent total at a definite point in time. A comparison can then be made, as of that time, of all outflows and inflows. If the result shows a saving the computer appears financially desirable. Care must be taken to select an interest rate which is at least as high as the rate the company's funds could earn in alternative uses.

This plan reveals a change in the profit pattern of the business. The use of a computer results in an increase in the fixed costs and a decrease in the variable costs of doing business. The effect is a shift in the break-even points: the rate of profit increases with high volume, and the rate of loss increases with low volume. In practice, most of the net savings must come from the preparation of input information. Usually, substantial changes of present or traditional business systems are required to achieve a productivity gain.

WHERE OFFICE AUTOMATION STANDS

DUN'S REVIEW, October 1957; pages 109-110.

A survey of 376 corporations revealed that 82 now have at least one general-purpose computer for business use. Another 78 are planning to install one within three years. Large companies predominate in the group that already has computers. The companies planning to install one in the future are largely the medium-size

organizations. Interest in computers was found to be heavy among railroads, insurance, utilities, oil companies, and instrument makers. Interest was light among fabricated metal products industries. The most popular functions for computer use were payroll, inventory control, billing, sales forecasting. Most companies felt that results were about what they had anticipated.

HOW TO MAKE AN ELECTRONIC FEASIBILTY STUDY FOR SAVINGS AND MORTGAGE OPERATIONS

Robert E. Fendrich, Howard Savings Institution, Newark, New Jersey
BANKING, November 1957; pages 55, 132.

A seven-point program is suggested for savings banks who are planning to begin a feasibility study, based on Howard Saving's experiences in planning for their Teleregister Magnetronic system. These include a period of time spent in understanding the nature of computers and electronic data processing systems, their relation to specific banking problems in general, and the development of a corollary signature look-up system for savings account operations.

CONVERTING TO AUTOMATIC DATA PROCESSING

Herbert T. Glantz, John Diebold & Assoc.
OFFICE EXECUTIVE, October 1957; pages 13-16.

The author's organization has found that companies who report disappointing results in their EDP installations have made the installations "without adequate professional planning or preparation."

The fault appears to lie, somewhat, with "a carryover in technique and attitude from the earliest applications of electronic data processing equipment to commercial problems....[which were] almost without exception the larger corporations. The procedures followed by this segment of business in installing automatic data processing systems seem to have lingered on, although the necessity for them has long since died." ((It is interesting to note, in passing, that the "earliest applications," mentioned above, date from about three years ago!)) "Perhaps the most overused statement to emerge from the ensuing scramble was that a particular computer installation was justified on the basis of such and such a single application." In many cases this was payroll accounting, "quite possibly the best example of what not to do with a digital computer."

Thus, many companies installed large-scale digital computers to handle jobs being done adequately by punched card equip-

ment. "The truly unfortunate result[is] that this type of lure still retains its early popularity."

However, the shift in emphasis to the medium-size business organization through the availability of medium-size equipment has shown up the inadequacy of the "single-shot justification technique," since "the processing activities of smaller firms are not routine but varied and interconnected....even paper savings are not available by mechanizing the payroll accounting of such firms. And the same holds true for billing, receivables, cost accounting and all of the normal isolated applications.

Study of whole system

"The key to the problem lies in a systems approach.... subjecting the overall operations of the company to a critical re-examination." In the systems approach, "one does not study isolated departments. Instead, one must define the true objectives of the information processing activities of the company."

Although "management's desire for new methods will normally be caused by evident faults and breakdowns in present procedures....the manner in which management discontent is expressed is generally quite vague" and includes "complaints against a general trend of increasing costs and decreasing production...." and complaints on the subject of information untimeliness, inaccuracy and unselectivity.

In approaching automation, the company may find an electronics committee useful for "ensuring company-wide understanding and cooperation. However, the problem of automation may be best resolved by specifically assigning this responsibility to an operating executive....[This person] must have a thorough understanding of broad concepts. He should be aware, within certain bounds, of the potential and limitations of automatic data processing systems. He must have an adequate feel for a situation to properly evaluate the technical difficulties and obstacles that will be reported by his operating staff." His staff should be selected, preferably, from present personnel, if there is sufficient time for training and planning.

In conclusion, the author believes that "the truly substantial benefits of automatic data processing are available only to those who are willing to recognize the necessity for 1) planning carefully, 2) being imaginative in the systems approach and 3) performing a considerable amount of detailed work."

INTEGRATED AND ELECTRONIC DATA PROCESSING IN CANADA

Published by The Canadian Institute of Chartered Accountants

Eight articles which have appeared in THE CANADIAN CHARTERED ACCOUNTANT over the past several years are reprinted in this small booklet. While some of the articles suffer somewhat from being out of date, in general the booklet is a

representative review of EDP philosophy. The articles on integrated data processing, happily, view IDP as an organizational systems engineering approach, rather than the narrow use of "IDP" punched tape equipment. "Auditing Electronically Produced Records" brings out some of the problems of the auditing function in a fully integrated electronic system. For information on obtaining a copy of the booklet, write: Mr. Gordon Kennedy, Public Relations Officer, The Canadian Institute of Chartered Accountants, 69 Bloor Street East, Toronto 5, Ontario, Canada.

LOOK BEFORE YOU LEAP

William A. Crichley, Diamond Alkali Company
CREDIT EXECUTIVE, October 1957; pages 13-16.

The Diamond Alkali Company decided not to install an electronic data processing system after making a feasibility study during 1956. The decision was based on the fact that their application range was wide, volume modest, and without any one sizable job. Also, their sales and billing operations are already integrated through a teletype system. In their situation, "practical economics rests with future electronic equipment, and not with current-day machines." The thinking which resulted in this decision is well presented. The article originally appeared in the August 1957 issue of CHEMICAL PROCESSING.

Programing

TAPE FILE MAINTENANCE

John H. Hughes, John Hancock Mutual Life Insurance Co., Boston
THE PROGRAMMER, July 1957.

The complexities of tape file maintenance are discussed, and some suggestions are given for a check list of items which must be included in a tape system.

Plan content and use of Master File

For example, in a simple updating system, what information is to be contained in the Master File, and can each item be contained in a fixed item size, or must the records be of variable length? Room must be left on the Master File for expansion. The Change tape format must contain a key to be matched against the Master File key, as well as an item code to indicate which item of a record is to be changed. Checks must be included to assure the change is made in the correct record. Provision must also be made to assure that changes are made in the proper order.

If a journal of changes is to be made, format will depend upon the use of the journal. Frequent reference to a printed journal means designing a form for easy comprehension of the printout. This means including some editing in the printout routine.

Deletions from the Master File may have additional uses (for example, John Hancock sends letters to paid-up policy holders when they are deleted from the Premium Billing File).

A Reference Item Tape is made from the Master File to avoid using the entire file for processing small portions of its content. The Reference Item Tape format needs careful design, also, since it may not need to contain all the information contained in each complete record in the Master File. Here, the economics of sorting come into the picture. The author quotes some comparable figures for computer vs punched-card sorting. A sort of 30,000 items, four words each, takes 45 minutes of computer time, at about $200. Sorting the same items on punched card equipment, would take about six hours and cost about $20. ((These estimates did not appear to include operators' time.))

Computer vs card sorting

At John Hancock, on payroll, where the cycle is short and change activity high, a computer sort is used. In the Premium Billing System with a monthly cycle and less activity, a card sort is used.

A problem in sorting is the sequence check, which is a necessity for most efficient use of computer time. The company

Design of tape file maintenance system

is now working on a sequence checker which will file up to three misfiled items in an otherwise ordered tape without excessive sorting time. It is suggested that the Sequence Check be used to check the validity of Change items. In this use, too, coding may be inserted in the Change item to carry out the change. In the Premium Billing Operation, they are using a ten-word change item, even though four words are enough. This costs nothing in computer memory since 60 words are needed for the Change input area, and costs little or no time, since the Updating run is computer limited.

"In designing a Tape File Maintenance system, one must consider the following: 1. Main File design; 2. Frequency of passing the Main File; 3. Activity of the Main File run; 4. Source and volume of Change items; 5. Controls required; 6. The clerical and punched-card activity required to round out the system. It is in this [latter] area that an experienced, intelligent staff man with an intimate knowledge of the business and the clerical force can be invaluable.

"No matter how carefully you design your system, the clerical force associated with it will find its weaknesses out. It is therefore essential that you leave enough room in the various runs of your system, expecially the Main Updating run, to allow additional coding to thwart each ingenious new variety of unanticipated input data."

THE UNIVAC FILE COMPUTER TAPE SORT COLLATE SYSTEM

Frank D. Murray, Remington Rand Univac
COMPUTING NEWS, October 15, 1957.

The tape sort collate system described is used with four Univac File Computer magnetic tape servos. Control of collation is through an external plugboard. Control of sorting is automatic. Both operations, or combinations of the operations are off-line, but a pseudo on-line mode may be selected.

Four tapes, using reverse-read feature

The sorting operation operates as follows: The tape that is to be sorted is placed on servo 1; the sorted tape will be the tape on servo 3. During the first (dispersion) pass, records are read from servo 1 and written on servos 3 and 4, dependent on natural sequences. As long as records are in ascending sequence, they are written on servo 3. When there is a break in the sequence, they are written on servo 4. With another break, back to 3, etc.

Upon completion of the dispersion pass, servo 1 rewinds and stops. If this tape is to be preserved, a blank tape is placed on servo 1. The "resume sort" button is pressed, and the sort is completed without operator help.

During the second pass, servos 3 and 4 are using the Univac File Computer ability to read in reverse, since they are at the ends of their respective tapes. Tapes 3 and 4 are compared and the larger number is written on tape 1. Tapes 3 and 4 are again compared and the next descending number is written on 1. If there is a break in descending sequence, the larger number is written on tape 2, and so on to the end. On pass three, the process is reversed. Tapes 1 and 2 read in reverse to 3 and 4, in ascending order. This continues until when, on completing an ascending pass, servo 4 does not move. This notifies the system that all numbers are on servo 3 and the sorting is complete.

THE COMPLEAT PROGRAMMER

ElectroData Division of Burroughs is now publishing a monthly bulletin for its customers on programing and coding techniques for the Datatron 205 and 220 and the ElectroData 101. Users are invited to contribute to the publication. Besides the programing information, it contains bibliographies, suggested periodicals in the EDP field, and lists organizations which are active in electronic business systems study. In all, it appears to be a very excellent correspondence user's forum...a kind of shared programing group by mail.

SHARED PROGRAMING GROUP

GUIDE -- The next meeting of the members of GUIDE will be held in the Madison Room of the Hotel Biltmore, Madison Avenue at 43rd Street, New York City, January 29-31, 1958. For information about the meeting, contact Thomas D. Ford, Secretary to GUIDE, Pan American World Airways System, 28-19 Bridge Plaza North, Long Island City 1, N. Y.

Applications

STUDY OF A SUCCESSFUL COMPUTER SYSTEM

Paul Kircher, University of California, Los Angeles
THE JOURNAL OF ACCOUNTANCY, October 1957; pages 59-65.

A case study of the IBM 705 EDP system at Farmers Insurance Group is the subject of this article, which was reviewed from its original manuscript in DPD, May 1957, page 11.

The ease with which the company converted its main file activity to the electronic system was contributed to by the fact that the company had a long history of systems improvements and high efficiency in its tab operation. The installation is considered in the "evolutionary" category, since its use of punch cards for input information was carried over from former methods. The fact that the person in charge of the new installation was also the manager of the tab section and an officer of the company helped to integrate the new system with the activities of the rest of the organization.

Equipment

UNITED AIR LINES RESERVATIONS EQUIPMENT

Two IBM 305 RAMACs have been delivered to the Denver operational headquarters of United Air Lines for reservation applications. Leased telephone lines will be used to feed information to the machine on the number of passengers boarding at each stop, the number of passengers traveling from each boarding point to each destination, and the number of seats sold on each leg of the flight.

SUPER HIGH SPEED MEMORY

IBM has developed a memory device which uses a miniature printed circuit of metallic lead at temperatures close to absolute zero. The device responds in a hundred millionth of a second, and continues to conduct at the same level after the current is removed. In addition, it requires only about a third of the current needed to drive the ferrite memory units now used in computers.

Comment

SELECTION AND TRAINING OF SYSTEMS PERSONNEL

One of the most difficult problems involved in installing integrated electronic data processing systems lies in the selection and training of high caliber systems personnel. The task of laying out a broad new system, and of checking all of the related details, is not an easy one. An EDP system by itself is no panacea; its success is dependent upon the quality of the systems work and the programing accomplished.

Yet the sad fact is that we know far less about the selection and training of EDP systems personnel than we do, say, about programers or console operators. As yet, there is no good definition of what an EDP systems person must do, or what his prior education or training should be.

Committee study

The Systems and Procedures Association is to be commended for making an all-out attack on this problem. At the recent International Systems Meeting held in Los Angeles, the Education Committee of SPA held its second annual roundtable on the problem. Those attending represented a good number of universities, businesses, and governmental agencies, and all seemed most interested in the problem.

This second roundtable went some distance further toward defining what a systems person does. The term "systems analyst" was roundly attacked as being inappropriate; it was pointed out that it is a much simpler matter to take something apart, as does the analyst (reference to a child taking a watch apart), than to put things back together in working order. The term "synthesist" was proposed as more appropriate, but since no one could pronounce it properly, it was dropped in favor of "systems person."

The point was raised that the systems person must take the overall approach to the total system of the organization, which in turn implies an understanding of management. The question then arises: should the systems person be a good manager, or just have a good understanding of management?

An example of an interesting procedures problem was raised to illustrate the understanding often involved in such work. It concerned the make-or-buy decision in a manufacturing plant. In attempting to set up an improved procedure for controlling make-or-buy decisions, the systems people soon isolated four levels of decisions and work:

Top level--policy on make-or-buy; is the policy of the firm to make, and then buy as a last resort, or to buy mainly and to make as a last resort?

Second level--Once the basic policy is established, then the rules for the make-or-buy decision must be made; also, the engineering of the product should keep the basic policy in mind.

Third level--Once the rules for make-or-buy are established, then the procedures must be set up for controlling the operation--methods of reporting, what data is to be kept, etc.

Fourth level--Once the procedures have been established, then the details must be formulated--layout of forms, where records are to be stored, etc.

The question was raised as to how far up the number of levels the systems man must be able to go. It was pointed out that the second (and possibly the first) level is presently considered to fall within the field of Operations Research. No conclusions were reached as to whether the systems man should be a capable practitioner at these levels, or whether he should depend mainly on the help of others. The comments of the meeting seemed to indicate that the third and fourth levels are the ones that most properly fall within the scope of systems work as we know it today ((note: we may be reflecting the opinions of only a few on this point; the group felt that more study was needed for defining the scope of systems work)).

Once the scope and boundaries of the duties of a system man are better established, then we will be in a better position to determine just what types of problems he is called upon to solve in his work. And once these problems are more clearly defined, then we can better decide just what disciplines are necessary and sufficient for solving these problems.

During the coming year, the group will be interrogated via questionnaires on such questions as: What does a systems man do? What knowledge and skills should a management systems man possess? What subjects can be taught most effectively at the various levels (grade school, high school, college, graduate, extension, and on-the-job) for training systems people? How do you motivate students toward systems work?

The group seemed to agree on one point--that any course of instruction should include a one-credit-hour class on "humility"--as one man put it, "Be humble, like us." It was quite apparent that "burned fingers" were common within the group.

Anyone interested in contacting SPA on this subject can write to Mr. William Worthington, National Director, Education, Systems and Procedures Association, 2104 E. Drachman, Tucson, Arizona.

NMAA WESTERN DIVISION CONFERENCE ON ELECTRONIC BUSINESS SYSTEMS

EDP users voice their experience with new systems

In only three years the Electronic Business Systems Conference, sponsored by the Western Division of the National Machine Accountants Association, has developed almost to maturity. If the Fourth Conference at Seattle next October shows the same growth as this year's in San Diego, the EBS Conference will emerge as one of the most progressive, practical, and potent conferences for computer users presently available. Perhaps the secret of EBS' success lies in its limited purpose. It is directed to business people, by business people...a kind of EDP users' wailing wall, designed to benefit through group therapy people who understand each other's language, who are not trying to "sell" but merely learn from each other's successes and failures.

Much "soul searching" and "washing of dirty linen" was done at the San Diego Conference, November 6 and 7. Companies who have computer installations operating, or who have been suffering through the programing and systems study phases, gave their representatives carte blanche in describing the miseries of going into EDP. While caution was the watchword in setting up an EDP System, most of the speakers gave the impression that their companies did it and they're glad, and would pursue much the same course if they were starting over. Much down-to-earth talk about tape accuracy, checking procedures, maintenance and unscheduled down-time, and other usually hush-hush subjects, were discussed in open meetings. There was regrettably little talk about good and thorough systems planning and too much about "getting a payload on the equipment." But several interesting aspects of this bi-lateral argument were brought out. For example, one large computer installation in state government has been put to work on "hopped-up" punch-card applications in order not to disturb the other government departments at the present time. Gradually, their systems engineers will undertake to include all areas which might come under the EDP system. Another example was a small insurance company which is planning an integrated system while beginning to use the EDP equipment in a quick pay-off application. This company is aware that it is not making economic use of the computer at the present time, and will not until the entire company has an integrated business system.

References

The addresses of publishers and periodicals mentioned in this issue of DATA PROCESSING DIGEST are listed below for your convenience in obtaining further information about the articles or books listed.

American Documentation
Interscience Publishers, Inc.
250 Fifth Avenue
New York 1, New York

Automation Progress
Stratford House
9 Eden Street
London N. W. 1, England

Banking
12 East 36th Street
New York 16, New York

Computers and Automation
815 Washington Street
Newtonville 60, Massachusetts

Computing News
12805 – 64th Avenue South
Seattle 88, Washington

Credit Executive
71 West 23rd Street
New York 10, New York

Dun's Review
99 Church Street
New York 8, New York

Fortune
540 North Michigan Avenue
Chicago, Illinois

Journal of Accountancy
270 Madison Avenue
New York 16, New York

The Programmer
Remington Rand Univac
315 Fourth Avenue
New York 10, New York

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Meetings

High Speed Computer Conference (Fifth Annual)
Date: February 12-14, 1958
Place: University of Louisiana, Baton Rouge, Louisiana
Information: P. F. Boyer, Director

American Management Association Electronics Conference, and EDP Equipment Exhibit
Date: March 3-5, 1958
Place: New York (Statler Hotel)
Information: American Management Association, 1515 Broadway, Times Square, New York 36, New York

Western Joint Computer Conference
Date: May 6-9, 1958
Place: Los Angeles, California (Ambassador Hotel)
Theme: Contrasts in Computers. The last day will be devoted to Reports from the Manufacturers on small automatic computers and input/output equipment.
Information: Dr. Willis H. Ware, General Chairman, care of Rand Corp. 1700 Main Street, Santa Monica, California

International Automation Exposition and Congress
Date: June 9-13, 1958
Place: New York (Coliseum)
Information: Richard Rimbach Associates, Show Management, 845 Ridge Avenue, Pittsburgh 12, Pennsylvania

Training

Operations Research--A Short Course, sponsored by Case Institute of Technology
Date: January 20-31, 1958
Place: Case Institute, Cleveland, Ohio
For whom: Persons who have research experience and some understanding of mathematical symbolism
Fee: $375, including materials and some meals
Information: R. L. Bell, Engineering Administration Department, Case Institute of Technology, 10900 Euclid Avenue, Cleveland, Ohio

Engineering and Management Course, University of California, Los Angeles

Date: January 27--February 6, 1958
Place: Los Angeles, California
For whom: Engineers and managers, all levels
Subjects: Operations research, electronic data processing*, management decision-making, industrial engineering, etc. Twenty-five courses in all.
Cost: $350
Information: Edward P. Coleman, Coordinator, Engineering and Management Course, College of Engineering, University of California, Los Angeles 24, California

* This course is similar in content to Canning, Sisson's "Electronic Data Processing for Business and Industry."

Installing an Electronic Data Processing System (Course 20), sponsored by Canning, Sisson and Associates

Date: February 17-21, 1958
Place: Chicago (Sheraton Blackstone Hotel)
Fee: $250
Content: This course is a logical continuation of Course 10, Electronic Data Processing for Business and Industry. It is desirable, but not required, that attendees have taken Course 10 or its equivalent. Organization, Personnel, Physical Installation, Conversion, Operation.
Information: Canning, Sisson and Associates, 1140 South Robertson Blvd. Los Angeles 35, California

Electronic Data Processing for Business and Industry (Course 10), sponsored by Canning, Sisson and Associates

Date: April 14-18, 1958
Place: New York (Hotel Biltmore)
Fee, Information: See Course 20 listed above

Installing an Electronic Data Processing System (Course 20), sponsored by Canning, Sisson and Associates

Date: May 12-16, 1958
Place: New York (Hotel Roosevelt)
Fee, Content, Information: See same course listed above

Operations Research in Production and Inventory Control, sponsored by Case Institute of Technology

Date: June 2-13, 1958
Place: Case Institute, Cleveland, Ohio
Information: R. L. Bell, Engineering Administration Department, Case Institute of Technology, 10900 Euclid Avenue, Cleveland, Ohio